

IN THE CLAIMS

Please cancel Claims 1-3 without disclaimer or prejudice.

Claims 4-6 are allowed.

4. (Previously presented) A service control gateway adapting to connect an intelligent layer network and an Internet Protocol (IP) network, said intelligent layer network having an intelligent network service control point for providing an Internet call waiting service to a terminal communicating with a server connected to the IP network, said intelligent network service control point being connectable to a plurality of switching systems in a transport layer network over a common channel signaling network, said transport layer network being connectable to said gateway via said IP network, and said switching systems being connectable to a plurality of terminals, the service control gateway comprising:

a first interface adapted to connect the service control gateway with the IP network;

a second interface adapted to connect the service control gateway with the intelligent layer network;

a memory in which predetermined programs are stored;

a processor for executing the programs;

a service control point (SCP) address management table including network ID information to identify the intelligent layer network where an Internet call waiting service requester is accommodated, service ID information, message type information, and address information of the SCP; and

a user address management table including user ID information, user telephone number information, first correlation ID information for judging correspondence of messages transmitted between the service control point and the service control gateway, second correlation ID information for judging correspondence of messages transmitted between the server and the service control gateway, and address information of the server and service status information,

wherein said first interface is arranged to receive an Internet call waiting service request message for one of said terminals via the IP network, and

wherein said processor refers to the SCP address management table and the user address management table when the Internet call waiting service request message is received, selects one service control point to which the request message should be transferred, converts a protocol of the request message into that available at the service control point, and

sends the protocol-wise converted message to the service control point via said second interface.

5. (Previously presented) A service control gateway according to claim 4, further comprising:

protocol conversion means for protocol-wise converting an incoming call notification message indicating arrival of an incoming call to said terminal into a message addressed to a server being in communication with the terminal, said incoming call notification message having been received from said service control point,

wherein said processor sends the protocol-wise converted incoming call notification message to said server.

6. (Previously presented) A service control gateway according to claim 4, further comprising:

protocol conversion means for protocol-wise converting an incoming call notification message indicating arrival of an incoming call to said terminal into a message addressed to an access point apparatus being in communication with said terminal, said incoming call notification message having been received from said service control point, and said access point apparatus being connected to said IP network and having

a function for transferring messages received from said service control gateway to said terminal,

wherein said processor sends the protocol-wise converted incoming call notification message to said IP network via said first interface.